

Institute. Instead of putting a ban on measurers, the object should be to elevate their character as a body. The Institute could discriminate between the worthy and unworthy; but to exclude every man simply because he practised as a measurer, seemed to him most unreasonable.

Mr. Tite was convinced that the suggested inquiry was the right step. Putting the Institute on one side, architects, as a body, did not occupy the position they should. Most people knew that he had no reason to complain of lack of employment. Still he did not hesitate to say that persons moving in the upper circles of life, did not employ architects as they should do, nor did they properly rate their services. Architects must take a place for themselves and maintain it, or the world would not do so.

Mr. C. Fowler, as one of the original founders of the Institute, could say that some of the principal members of the profession made exclusion the condition on which they gave their support. For himself, he thought the subject well deserving investigation; and, moreover, was satisfied that something must be done.

Ultimately, on the motion of Mr. Tite, seconded by Mr. Godwin, a resolution was passed unanimously, requiring the new council to examine to what extent the objects of the founders of the Institute had been effected, and if any and what alterations in the laws were desirable.

The motion for suspending the regulation as to president having been carried unanimously, Mr. G. Bailey, Hon. Sec., read the report, which showed, amongst other things, that the receipts for the current year were 857l. 12s., and that there was a balance of 267l. at the bankers'.

A discussion ensued as to the award of the royal medal, in which Mr. Fowler, Mr. Woodthorpe, Mr. L'Anson, &c., took part; and it was shown conclusively that the council, by committing the institute to their award, by applying to her Majesty before coming to the general meeting to confirm their report, had exceeded their powers.

The report having been received, thanks were voted by acclamation to the president, Earl de Grey, and afterwards to the vice-presidents.

Mr. Bailey, who had acted as honorary secretary for seven years, having expressed his intention of not serving again, a vote of thanks was passed, expressive of the high sense of the institute of his services.

Other complimentary motions having been carried, the ballot was taken, and the following were elected the officers for the ensuing year:—President, Earl de Grey; Vice-presidents, Messrs. Bellemey, Salvin, and Sydney Smirke; Honorary Secretaries, Messrs. T. L. Donaldson and Scoles; other members of council, Messrs. Donthorne, Kendall, Mayhew, Mair, Mee, Mocatta, Nelson, C. Parker, Penrose, and Wyatt; Auditors, Messrs. Kendall, jun., and C. Barry, jun.

#### SELECT COMMITTEE ON SCHOOL OF DESIGN.

On the 4th inst., Mr. R. Solly, chairman of the Sheffield School of Design Committee, was examined, also Mr. Young Mitchell, the master of that school. The latter produced some designs made by pupils, and showed that public taste, with regard to designs, is so bad in Sheffield, that a pure design has every chance of being rejected by the manufacturers.

Mrs. M'lan, being examined, said the progress of her pupils had been less satisfactory since their removal to the lodgings in the Strand, and that if the committee had desired to find a place that was ill-adapted for the school, they could not have succeeded more eminently.

Mr. C. J. Richardson, one of the masters, said he was convinced, if the school were made more practical and the masters in each class allowed to instruct their pupils in design, that it would be much more frequented by artisans than it is. He considered the school in its practical results a failure, and thought the control exercised by the committee injurious.

THE SUSPENSION BRIDGE AT PESTH, it is said, has been destroyed by the Austrians, in order to cover their retreat before the Hungarians; the bridge of boats is also said to have been burnt for the same purpose.

#### DRYING CLOSETS.

MANY experiments have been made by Mr. Baly, the engineer to the Committee for promoting the establishment of Baths and Washhouses for the Labouring Classes, and recently under the immediate superintendence of Mr. William Hawes, the deputy-chairman of the committee, for the purpose of ascertaining the best mode of drying clothes, &c., quickly and economically. For some time past Mr. W. Hawes, as one of the board of the Middlesex Hospital, has been superintending such experiments for the purposes of that institution, as well as for those of the Model Establishment of Baths and Washhouses. Mr. Jeakes's letter to you announces the result of one of the experiments suggested and superintended by Mr. Hawes, and which appears likely to insure economy as well as rapidity in drying. The previous experiments were generally, and some of them were strikingly successful, as regarded quickness in drying clothes,—it being found that a clothes-horse load could be well dried in half-an-hour; but the committee were constantly foiled in their endeavours to do the work with a small consumption of fuel.

The subject is one of considerable importance; and perhaps Mr. Jeakes and Mr. Healy would be so obliging as to state what are the quantities of fuel necessary for evaporating, in given times, by their respective plans, given weights of water,—for the more light from experience that can be thrown on the matter the better.

In order that washhouses for the labouring classes may, with low charges, be self-supporting, the greatest economy of fuel is most desirable. The distasteful habits which those who have been forced to boil their water for washing by the half gallon or the quart at a time, have unavoidably acquired, cannot be corrected immediately; but by enabling them to wash and dry quickly, they may be led to use more dispatch. For such institutions as hospitals, workhouses, &c., economy may be the chief requisite, while for many manufacturing processes rapidity is of more importance. The great object of the committee is to combine rapidity with economy, and they have not hitherto found any existing practice sufficient for insuring the combination. It may be of service to give publicity to a hint, for which the committee are indebted to Mr. Brunel, that drying would, in some cases, be effected much more quickly and better by high-pressure steam than by hot air. Mr. W. Hawes's plan makes an approach towards the high-pressure steam plan.

I may add that the experimental labours, expenditure, and failures of the committee promise to bear the good fruit of eventual success, and fully to reward the generosity with which their perseverance has been supported by the public. The success which has attended the adoption of the plans of the model establishment for the St. Martin's baths and laundries, may be referred to as an illustration of the beneficial results of that perseverance. Even during the winter months the receipts at those baths have yielded a decided profit over the working expenses. It cannot be too strongly impressed on those who have to design baths and washhouses that it is true economy to spend 200l. or 300l. extra, for the purpose of enabling the services of a single attendant to be dispensed with, or for making one ton of coals a-week do the work of three.

JOHN BULLAR, Hon. Sec.

•• We have great respect for the intentions of the committee, but we cannot, even by silence on the point, justify the extraordinary waste of time and money which has taken place at the model establishment. Some of the statements forwarded to us by parties who ought to be correctly informed, would almost justify a committee of inquiry on the part of the subscribers.

Mr. Jeakes's notice under this head in your number of April 14th states, that his experiments on a small closet "prove that at high temperatures an external air-drain may be entirely and advantageously dispensed with;" and leads to the inference that a change of air in drying-closets is not an assistance, but an impediment; which is so much at variance with received theory and successful practice,

that I am induced to think there must be something in the case which has been overlooked.

In your last number (May 5) Mr. Healy correctly gives it as a received opinion, that a current of air is an important part of the process of drying,—perhaps as important as heat; for linen may be dried out of doors, where it will be subject to constant change of air about its surface, without artificial heat at all; but if hung in a saturated medium, it will not dry though at a high temperature. Any laundress practising open-air drying, will say that the difference between a good and a bad drying day lies here: in the former, the atmosphere is in brisk motion, and dry; in the latter, it is still and moist. In other words, the linen dries most quickly, when there is a rapid succession of dry particles of air passing over its surface.

Artificial drying is in fact a two-fold operation. By heat, the moisture is quickly converted into vapour; by ventilation, that vapour is carried away, and replaced with dry air. If no fresh air were introduced, successive charges of wet linen would soon saturate the atmosphere of the closet, at which point drying must altogether cease.

But ventilation may be in excess. The utmost effect will be obtained from a closet and heating apparatus, of given size, when the air admitted bears a definite and not to be exceeded proportion to the quantity of vapour to be evolved in a given time,—to the temperature,—to the thickness of the textures,—to the state of the atmosphere at the time as regards dryness and motion. Hence, there should be area for ingress and egress, sufficient for the greatest required quantity of drying under the least favourable state of the external air, with means of reducing that area for smaller quantities and a drier or less stagnant atmosphere.

In many drying closets which I have been engaged on in this district, on the large scale for manufacturing purposes, rapidity of drying has been materially promoted by increasing the ventilation: in some cases where the textures were very thick, and introduced in a very wet state, still greater acceleration has been produced by the application of powerful forcing-apparatus, such as air-pumps or fans, worked by a steam-engine.

At the Lancaster County Lunatic Asylum, I have recently completed a closet for drying all the linen, bedding, &c. for 700 to 800 patients. The textures are unusually thick and heavy, and not easily wrung by female hands, and hold, on the average, twice their own weight of water when placed in the closet, thus:—Weight of a dry rug 4½ lbs., wet 13 lbs.; weight of wet clothing dried daily in twelve hours, 4,006 lbs.; water evaporated in the same time, 252 gallons; temperature, 120° when the clothes are put in, increasing to 170° when dry; cubic contents of closet, 5,040 feet; constant ventilation, 293 square inches, with means for increasing it in moist heavy weather.

The foregoing considerations applied to the case in question lead to the conclusion:—1st, that the quantity of air admitted was too great for the size of the closet and for the heating power. 2nd, that though the original provision has been abandoned, there may still be left crevices or accidental openings, permitting sufficient change of air for so small a closet.

Manchester.

W. WALKER.

My remarks on the drying closet at the Middlesex Hospital have been entirely misconceived by your correspondent in the last number of THE BUILDER. By repeated experiments on that closet, it has been proved capable of evaporating 1 lb. of water per minute by employing merely the waste heat derived from the flue of the ironing stove; and although containing, as your correspondent observes, but 336 cubic feet, dries with ease the whole of the linen for 250 patients!

That this great effect is owing to the absence of the cold-air drain, has been satisfactorily proved by experiments tried before this drain was closed. Its economy cannot be disputed: for assuming your correspondent's statement of having an air-drain containing 144 inches, and allowing the air to travel at the rate of 3 feet per second, 180 cubic feet must then be heated per minute from the temperature of the external air to that of the closet, which, in the case of the closet at the Middlesex, is dispensed with.

W. JEAKES, Jun.